In the Claims

1. (Currently amended) A method for detecting *B. anthracis* in a sample, the method comprising:

a) providing a system comprising:

a layer of immobilized metal particles positioned on a surface substrate, wherein the immobilized metal particles have attached thereto a captured nucleotide sequence probe which is complementary to a known first nucleotide sequence section of the [[*B.*]] *Bacillus anthracis*; [[and]]

b) contacting the sample with the captured nucleotide sequence probe, wherein any *B. anthracis* in the sample having a nucleotide sequence complementary to the captured nucleotide sequence probe binds to the captured nucleotide sequence probe; and

c) contacting any bound *B. anthracis* sequence with a free nucleotide sequence probe, wherein the free nucleotide sequence probe is complementary to a known second nucleotide sequence section of the *B. anthracis* and has attached thereto a fluorophore, and wherein binding of the free nucleotide sequence probe to the known second nucleotide sequence section of the *B. anthracis* causes the fluorophore to be positioned from about 50 to about 500 Å ~~a sufficient distance~~ from the immobilized metal particles thereby enhancing ~~to enhance~~ fluorescence emission when excited by an irradiating source and ~~,thereby~~ using such emissions to detect the presence of *B. anthracis*.

2. -4. (Cancelled)

5. (Previously presented) The method according to claim 1, wherein the metal particles are silver or gold.

6. (Currently amended) The method according to claim 1, further comprising detecting fluorescence emissions with a detection device.

7. (Currently amended) The method according to claim 6, wherein the detection device comprises a spectrometer, luminometer ~~microscope~~, plate reader, fluorescent scanner, or flow cytometer~~, or any combination thereof~~.

8. (Previously presented) The method according to claim 4, wherein the captured nucleotide sequence probe is covalently linked to the immobilized metal ~~metallized~~ particles.

9. (Currently amended) The method according to claim 1, wherein binding of the captured and free nucleotide sequence probes ~~complementary~~ to the first and second known nucleotide sequences of *B. anthracis* is conducted under highly stringent hybridization conditions.

10. (Original) The method according to claim 1, wherein the irradiating source uses a 1-photon or 2-photon excitation means.

11. (Cancelled)

12. (Original) The method according to claim 1, wherein the fluorophore comprises a low quantum yield species.

13. (Original) The method according to claim 1, wherein the fluorophore can undergo two-photon excitation.

14. (Original) The method according to claim 1, wherein the fluorophore comprises Rhodamine B, rose bengal or fluorescein isothiocyanate.

15. (Currently amended) The method according to claim 1, wherein the free nucleotide sequence probe further comprises a metal colloid attached thereto and positioned for sandwiching the fluorophore between the metal colloid and the immobilized metal particles on the substrate when the known second nucleotide sequence of *B. anthracis* is bound.

16. (Currently amended) An assay method for detecting a target pathogen in a sample, the method comprising:

a) providing a system comprising:

an immobilized metallized layer positioned on a surface substrate, wherein the immobilized metallized layer has attached thereto an immobilized capture nucleotide

sequence probe complementary to a first known nucleotide sequence of the target pathogen;

b) contacting the sample with the immobilized capture nucleotide sequence probe, wherein the nucleotide sequence of the target pathogen binds to the immobilized capture nucleotide sequence probe;

c) contacting the bound nucleotide sequence of the target pathogen with a free nucleotide sequence probe, wherein the free nucleotide sequence probe is complementary to a second known nucleotide sequence of the target pathogen, wherein the free nucleotide sequence probe has attached thereto a fluorophore, wherein the free nucleotide sequence probe further comprises a metal colloid attached thereto and positioned for sandwiching the fluorophore between the metal colloid and immobilized metal particles on the surface substrate when the nucleotide sequence of the target pathogen is bound to the immobilized metal particles, wherein binding of the free nucleotide sequence probe to the nucleotide sequence of the target pathogen causes the fluorophore to be positioned from about 50 to about 500 Å ~~a sufficient distance~~ from the immobilized metallized surface and metal colloid to enhance fluorescence emission when excited by an irradiating source; and

d) identifying the target pathogen by fluorescence emission by irradiating the system with an irradiating source to excite the fluorophore.

17. (Cancelled)

18. (Previously presented) The method according to claim 16, wherein the target pathogen is *B. anthracis*.

19. (Cancelled)

20. (Original) The method according to claim 16, wherein the metallized surface comprises metal particles comprising silver or gold.

21. (Original) The method according to claim 16, further comprising detecting fluorescence emission with a detection device.

22. (Currently amended) The method according to claim 21, wherein the detection device comprises a spectrometer, luminometer ~~microscope~~, plate reader, fluorescent scanner, or flow cytometer~~, or any combination thereof~~.

23. (Cancelled)

24. (Original) The method according to claim 16, wherein the irradiating source uses a 1-photon or 2-photon excitation means.

25. (Original) The method according to claim 16, wherein the fluorophore comprises a low quantum yield species.

26. (Original) The method according to claim 16, wherein the fluorophore can undergo two-photon excitation.

27. (Original) The method according to claim 16, wherein the fluorophore comprises Rhodamine B, rose bengal or fluorescein isothiocyanate.

28. – 56. (Cancelled)